

REMARKS/ARGUMENTS

A. Summary of the Amendment

Reexamination and reconsideration are courteously requested. By way of the present amendment, claims 1, 10, 15 and 27 are amended. Claims 6, 26, and 31 to 48 were previously canceled. Thus, claims 1 to 5, 7 to 25, and 27 to 30 remain pending for the Examiner's consideration, with claims 1, 10, 15, and 27 being independent claims.

Although after a final Office Action, the current amendment to the claims is compliant with Rule 116. The present amendment merely changes the phrase, from the independent claims, "thickness of less than about 10 microns" to "thickness that is mostly less than about 10 microns." The present amendment is only made to remove an issue regarding the written description requirement of 35 U.S.C. § 112, first paragraph. Thus, the amendment places the application in better form for appeal by removing issues from consideration. Furthermore, the Examiner's comments in the Office Action exemplify the Examiner's consideration of the claim language as amended. The Examiner (Office Action, top of p. 3) points to language in the present specification that matches that of the current amendment, and notes the difference between the meaning of the term as written in the specification and the meaning of the term as claimed. Thus, by following the Examiner's lead to make the claim language conform to the language of the specification, no new issue is raised and the application is placed in better form for appeal.

B. Rejections Under 35 U.S.C. § 112, First Paragraph

All of the pending claims are rejected as failing to comply with the written description requirement. In response, the independent claims are slightly modified to match the language in paragraph 0076 of the specification as filed. Consequently, the rejections under 35 U.S.C. § 112 should be withdrawn.

C. Rejections Under 35 U.S.C. § 103(a)

Claims 1 to 5, 7 to 12, 15 to 19, 22 to 25, 27, and 29 to 30 are rejected as being unpatentable over U.S. Patent No. 6,183,888 (Alperine) in view of U.S. Patent No. 4,810,334 (Honey). These rejections are respectfully traversed.

Independent claims 1, 10, 15, and 27 recite that a layer having a thickness that is mostly less than about 10 microns is electroplated to include platinum and particles having a thickness ranging between 1 micron and 10 microns. The platinum and the particles are concurrently (claims 10, 27) deposited to form the layer. Further, the platinum and the particles are deposited from the same electrolytic bath (claims 1, 15) to form the layer. It was not expected to by the present inventors that the layer could be mostly thinner than 10 microns because it was not thought that a thin platinum layer (i.e. of less than about 10 microns in thickness) would be able to entrap particles as large as 1 micron, and up to 10 microns, in average particle diameter.

This argument was presented in the previous response, and the Examiner responded in the final Office Action by stating:

"the prior art teaches a reasonable expectation of co-depositing a layer of platinum by electroplating and MCrAlY particles by electrophoresis ... for composite layers of platinum metal and discrete MCrAlY particles. Nothing in the prior [art] suggests that layers thinner than the 20-200 microns taught by Alperine et al (at col. 6, lines 45-51) would not have been capable of being produced, particularly because the layers formed by the process of Alperine et al. start at a thickness of zero microns and build up over time to the final overall thickness. Thus, the process could have been stopped at any desired time after initiation."

The Examiner's comments are acknowledged, however it is respectfully pointed out that the fact that the Alperine electrolytic plating process is performed until the layer reaches 20-200 microns is evidence that a layer thinner than 20 microns was not thought to be satisfactory. Furthermore, the Alperine process is tailored by specifying a current density that will produce a layer of 20 to 2000 microns in an extremely short amount of time (i.e. one second). Adjusting the process to produce a layer of platinum that is

mostly less than 10 microns would not be as simple as stopping the process in less than 1/20th of the time it would take to form a layer of 200 microns. Rather, the current density and/or the chemical nature of the electrolytic bath would require adjustments. Even if it were as simple as the Examiner asserts to deposit a layer as thin as set forth in the present claims, Alperine provides no teaching that such a thin layer would be suitably durable and capable of securing particles therein.

None of the prior art references teaches or suggests concurrent electroplating of platinum together with particles having the claimed particle size. Further, none of the references teaches or suggests formation of a particle-entrapping metal layer having a thickness as small as that presently claimed. As set forth previously, Alperine fails to disclose any type of particles that are co-deposited with platinum and consequently entrapped in an electroplated layer that comprises platinum. Honey fails to compensate for this deficiency. Honey is merely directed to layers having a thickness of 25 to 150 microns (col. 2, lines 66 to 68), and makes no mention of platinum as a metal that entraps the metal particles. Although Honey discloses the co-deposition of particles and another metal to form an electroplated layer, the materials that Honey discloses are not platinum or other metal particles. Thus, a person of ordinary skill in the art would not be prompted from reviewing Honey to modify Alperine to produce a layer of metals entrapped in a layer that comprises platinum that is mostly thinner than 10 microns. Plainly, each of the elements of the pending claims are nowhere suggested in either reference. For at least this reason, the rejections under 35 U.S.C. § 103(a) should be withdrawn.

The remaining rejections of claims 13 to 14, 20 to 21, and 28 are traversed in view of the same arguments. None of the remaining cited prior art references (Strangman, Adams) is directed to any type of electroplating method in which particles are co-deposited together with another metal to form a single layer. Thus, the cited prior art fails to teach or suggest the features recited in the independent claims. It is therefore respectfully requested that the rejections under 35 U.S.C. § 103(a) be withdrawn.

D. Conclusion

In view of Applicant's amendments and remarks, it is respectfully submitted that Examiner's objections and rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants attorneys at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: May 11, 2007

By: /DAVID K. BENSON, REG. NO. 42314/
David K. Benson
(480) 385-5060